

## LINEARLY REGULATED BATTERY CHARGER

### Abstract of the Disclosure

A battery charger for an electronic device receives current limited power from an external power source, such as a Universal Serial Bus power interface. The battery charger can linearly regulate a charging current to an internal battery and limit the charging current so as not to demand current in excess of what the external power source can provide. A bi-directional pass element coupled between a system power terminal and the internal battery controls the charging current and effectively isolates the internal battery from a system load during charging of the battery while providing a low impedance path from the internal battery to the system load during discharging of the battery.

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